

Scaled data based on original data using
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-State
Lighting Products

Test Report Prepared for

Cooper Lighting Solutions

(formerly Eaton)

Brand: METALUX

Report Number: P276377

Luminaire Tested: **24CZ2-45-S-UNV-L83050-W2A1-U-3000K**

Issue Date: 3/3/2020

Test Information

Test Method: LM-79-08
Report Number: P276377
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-1805-783-1)
Test Lab: INNOVATION CENTER(G3)
Issue Date: 3/3/2020
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)
Product Line: METALUX
Catalog Number: 24CZ2-45-S-UNV-L83050-W2A1-U-3000K
Description: CRUZE 2.0 2x4 TUNABLE WHITE LED TROFFER WITH SMOOTH LENS
Light Source: (168) 80 CRI LEDS TUNED TO 3000K CCT
Ballast/Driver: ELECTRONIC DRIVER

Summary

Lumens per Lamp: N/A
Luminaire Lumens: 4257.0 lumens
Efficiency: N/A
Efficacy: 122.0 lumens/watt
Spacing Criteria (0/90/45): 1.2 / 1.26 / 1.35
Luminous Opening: Rectangular (W 2' x L: 4' x H: 0')
CIE Type: Direct

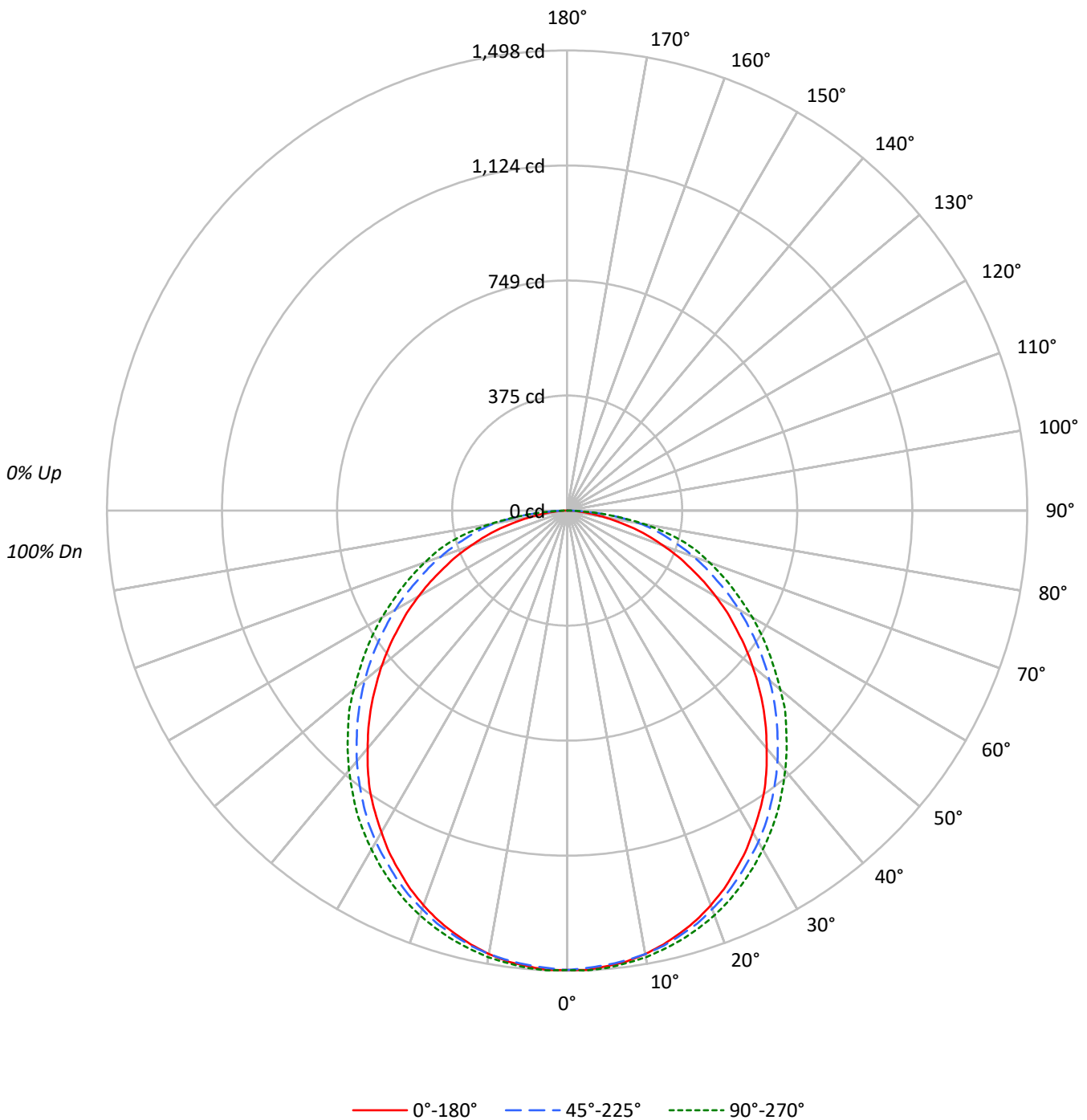
Input Watts (W): 34.898064
Input Voltage (V): 120
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 25 FT



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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20	
RC	80				70				50				30				10	0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																		
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102	100
1	108	103	99	95	106	101	97	93	97	93	90	93	90	88	89	87	85	83
2	98	90	83	77	96	88	81	76	84	79	74	81	76	72	78	74	71	69
3	89	79	70	64	87	77	69	63	74	67	62	71	66	61	69	64	60	58
4	82	70	61	54	80	68	60	54	66	59	53	63	57	52	61	56	51	49
5	75	62	53	46	73	61	53	46	59	51	46	57	50	45	55	49	45	42
6	70	56	47	40	68	55	47	40	53	46	40	52	45	40	50	44	39	37
7	64	51	42	36	63	50	42	36	48	41	35	47	40	35	46	39	35	33
8	60	46	38	32	58	46	37	32	44	37	32	43	36	31	42	36	31	29
9	56	43	34	29	55	42	34	29	41	34	28	40	33	28	39	33	28	26
10	53	39	31	26	51	39	31	26	38	31	26	37	30	26	36	30	26	24

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	2012	2012	2012
5°	2011	2005	2018
10°	2003	2003	2017
15°	1983	1993	2014
20°	1957	1977	2008
25°	1921	1957	1995
30°	1878	1935	1979
35°	1837	1903	1963
40°	1774	1871	1940
45°	1716	1834	1919
50°	1650	1800	1896
55°	1576	1767	1878
60°	1503	1739	1874
65°	1408	1709	1886
70°	1303	1718	1936
75°	1167	1750	2046
80°	943	1854	2001
85°	710	1629	1587



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	141.6	3.3
10°-20°	404.6	9.5
20°-30°	608.1	14.3
30°-40°	724.4	17.0
40°-50°	741.4	17.4
50°-60°	667.4	15.7
60°-70°	524.2	12.3
70°-80°	340.2	8.0
80°-90°	105.2	2.5
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-30°	1154.3	27.1
0°-40°	1878.6	44.1
0°-60°	3287.4	77.2
0°-90°	4257.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4257.0	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	1496	1496	1496	1496	1496	
5°	1489	1492	1485	1493	1494	141
15°	1424	1428	1431	1443	1446	401
25°	1294	1305	1318	1340	1344	596
35°	1118	1132	1159	1187	1195	698
45°	902	924	964	1001	1009	695
55°	672	702	753	792	800	602
65°	442	476	537	581	592	440
75°	224	268	337	383	394	238
85°	46	85	106	103	103	56
90°	0	0	0	0	0	



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CANDELA DISTRIBUTION (FULL):

	0°	22.5°	45°	67.5°	90°
0°	1495.5	1495.5	1495.5	1495.5	1495.5
2.5°	1496.9	1496.9	1490.1	1496.9	1498.2
5°	1488.8	1491.5	1484.7	1492.8	1494.2
7.5°	1480.6	1480.6	1476.6	1484.7	1486.0
10°	1465.8	1467.1	1465.8	1475.2	1476.6
12.5°	1446.8	1449.5	1450.9	1460.4	1461.7
15°	1423.8	1427.9	1430.6	1442.8	1445.5
17.5°	1398.2	1402.2	1409.0	1422.5	1425.2
20°	1367.1	1372.5	1380.6	1398.2	1402.2
22.5°	1333.3	1338.7	1352.2	1368.4	1375.2
25°	1294.0	1304.9	1318.4	1340.0	1344.1
27.5°	1254.8	1264.3	1281.9	1304.9	1310.3
30°	1208.8	1223.7	1245.4	1268.3	1273.8
32.5°	1164.2	1179.1	1204.8	1229.1	1235.9
35°	1118.3	1131.8	1158.8	1187.2	1195.3
37.5°	1065.5	1083.1	1112.8	1141.2	1149.4
40°	1010.1	1031.7	1065.5	1095.3	1104.7
42.5°	957.3	980.3	1014.1	1046.6	1057.4
45°	901.9	923.5	964.1	1000.6	1008.7
47.5°	845.1	869.5	912.7	949.2	962.8
50°	788.3	814.0	860.0	897.8	906.0
52.5°	731.5	758.6	807.3	847.8	851.9
55°	672.0	701.8	753.2	792.4	800.5
57.5°	617.9	643.6	699.1	739.6	749.1
60°	558.5	586.8	646.3	684.2	696.4
62.5°	501.7	531.4	593.6	631.5	642.3
65°	442.2	476.0	536.8	581.4	592.3
67.5°	390.8	423.2	488.1	531.4	542.2
70°	331.3	367.8	436.8	481.4	492.2
72.5°	279.9	317.8	386.7	430.0	446.2
75°	224.5	267.7	336.7	382.7	393.5
77.5°	170.4	220.4	290.7	325.9	325.9
80°	121.7	174.4	239.3	255.6	258.3
82.5°	79.8	131.2	177.1	175.8	175.8
85°	46.0	85.2	105.5	102.8	102.8
87.5°	17.6	35.2	37.9	37.9	36.5
90°	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)